


















APPENDIX III:
GEOTECHNICAL BORING LOGS

DERT 1 IRB Phase I
 Log: Boring BI-6
 MH 07/16-17/2003


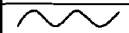
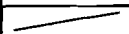
	Sharp Boundary
	Transitional Boundary
	Finning Upwards/Downwards


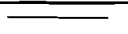

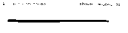


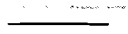





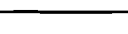

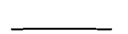

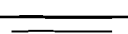


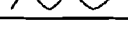












Boring	Date	Depth (ft)	Description (cm)	SRFC (upper)	CM	Remarks
BI-6	7/16/2003	0.0 - 2.5	0 - 15 Dark Tan coarse/med Sand		NCM	Nothing Screened
BI-6			15 - 32 Tan coarse/med Sand		NCM	
BI-6	7/16/2003	2.5 - 4.0	0 - 37 Clean Tan coarse/med Loose Sand		NCM	Nothing Screened
BI-6	7/16/2003	4.0 - 5.5	0 - 6 Dark Tan Sand		NCM	Cuttings - Pebbles, Shell
BI-6			6 - 13 Ligth Grey med/fine Sand/Silt		NCM	Difference is result of dry boring
BI-6			13 - 36 Wet Clean Light Tan coarse Sand with Pebbles		NCM	
BI-6	7/16/2003	5.5 - 7.0	0 - 18 Wet Clean Light Tan coarse/med Sand/Pebbles		NCM	Cuttings - Pebbles
BI-6			18 - 32 Dark Tan/Brown med/coarse Wet Sand		NCM	
BI-6	7/16/2003	7.0 - 8.5	0 - 3 Dark Tan med.coarse Sand/Pebbles		NCM	Cuttings - Pebbles
BI-6			3 - 7 Peat		NCM	
BI-6			7 - 15 Organics med Sand		NCM	
BI-6			17 - 27 Med Grey clean med Sand with Pebbles		NCM	
BI-6	7/16/2003	8.5 - 10.0	0 - 27 Med Grey coarse/med Sand some Pebbles		NCM	Cuttings - Pebbles
BI-6	7/16/2003	13.5 - 15.0	0 - 26 Grey Well Sorted med Sand		NCM	Nothing Screened
BI-6	7/16/2003	18.5 - 20.0	0 - 25 Grey Well Sorted med Sand		NCM	Nothing Screened
BI-6	7/16/2003	22.5 - 25.0	0 - 28 Grey Well Sorted coarse/med Sand w/ Pebbles		NCM	Nothing Screened
BI-6	7/16/2003	28.5 - 30.0	0 - 25 Grey Well Sorted coarse/med Sand w/ Pebbles		NCM	Nothing Screened
BI-6	7/16/2003	32.5 - 35.0	0 - 26 Grey Well Sorted coarse/med Sand w/ Pebbles		NCM	Nothing Screened
BI-6	7/17/2003	38.5 - 40.0	0 - 13 7.5 Yr 2/1 Dark Grey Sandy Clay		NCM	Nothing Screened
			3 - 21 7.5 Yr 2/1 Dark Grey Silty Clay		NCM	
			21 - 24 7.5 Yr 2/1 Dark Grey Sandy Clay		NCM	
			24 - 48 7.5 Yr 2/1 Dark Grey Silty Clay		NCM	
BI-6	7/17/2003	42.5 - 45.0	0 - 35 7.5 Yr 2/1 Sandy Clay, Increased Shell		NCM	Cuttings - Shell
BI-6			35 - 56 7.5 Yr 2/1 Silty Clay, Very Little Shell		NCM	
BI-6	7/17/2003	48.5 - 50.0	0 - 50 7.5 Yr 2/1 Silty Clay, Very Little Shell		NCM	Nothing Screened
BI-6	7/17/2003	52.5 - 55.0	0 - 26 7.5 Yr 2/1 Dark Grey Clayey med Sand		NCM	Difference is the result of boring
BI-6			26 - 42 7.5 Yr 2/1 Dark Grey fine Silty Clay		NCM	
BI-6	7/17/2003	58.5 - 60.0	0 - 31 Dark Grey fine Silty Clay, Sand Inclusions		NCM	Cuttings - Shell 7.5 Yr 2/1
BI-6	7/17/2003	62.5 - 65.0	0 - 53 Dark Grey fine Silty Clay, Sand Inclusions		NCM	Cuttings - Shell 7.5 Yr 2/1
BI-6	7/17/2003	68.5 - 70.0	0 - 49 7.5 Yr 2/1 Dark Grey fine Sandy Silty Clay		NCM	Nothing Screened
BI-6	7/17/2003	72.5 - 75.0	0 - 44 7.5 Yr 2/1 Dark Grey Silty Clay		NCM	Cuttings - Shell
BI-6	7/17/2003	78.5 - 80.0	0 - 11 7.5 Yr 2/1 Dark Grey Silty Clay		NCM	Cuttings - Shell, Organics


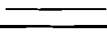


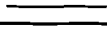
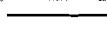


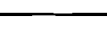

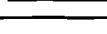



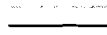




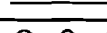

Boring	Date	Depth (ft)	Description (cm)	SRFC (upper)	CM	Remarks
BI-6			11 - 15 Dark Grey Black very fine Silty Clay, Organics	—	NCM	
BI-6			15 - 34 Med Grey/ Reddish Grey fine Silty Clay	~	NCM	
BI-6			some Organics			
BI-6	7/17/2003	82.5 - 85.0	0 - 54 7.5 Yr 2/1 Dark Grey Silty Clay		NCM	Nothing Screened
BI-6	7/17/2003	88.5 - 90.0	0 - 46 7.5 Yr 2/1 Dark Grey Silty Clay		NCM	Nothing Screened
BI-6	7/17/2003	92.5 - 95.0	0 - 3 Yr 2/1 Dark Grey Silty Clay		NCM	Cuttings - Shell, Organics
BI-6			3 - 16 Grey Poorly Sorted coarse/med Sand	—	NCM	
BI-6			16 - 31 Grey Poorly Sorted med Sand and Gravel	—	NCM	
BI-6	7/17/2003	98.5 - 100.0	0 - 5 Grey med Gravel and Coarse Sand		NCM	Cuttings - No Inclusions
BI-6			5 - 24 Grey med/coarse Sand	—	NCM	
BI-6	7/17/2003	102.5 - 105.0	0 - 6 Grey Poorly Sorted med Sand		NCM	Cuttings - Pebbles
BI-6			6 - 26 Light Grey Clean med Sand	~	NCM	
BI-6	7/17/2003	108.5 - 110.0	0 - 20 Med Grey Poorly Sorted med Sand		NCM	Cuttings - Pebbles
BI-6			20 - 29 Very Light Grey Clean WellSorted fine Sand	—	NCM	Change Due to SPT Sampler
BI-6	7/17/2003	112.5 - 115.0	0 - 22 Med Grey Poorly Sorted med Sand		NCM	Cuttings - Pebbles
BI-6			22 - 27 Very Light Grey Clean WellSorted fine Sand	—	NCM	Change Due to SPT Sampler
BI-6	7/17/2003	118.5 - 120.0	0 - 30 Very Light Grey Clean WellSorted fine Sand		NCM	Cuttings - Pebbles
BI-6	7/17/2003	122.5 - 125.0	0 - 9 Light Grey Well Sorted Clean fine Sand		NCM	Nothing Screened
BI-6			9 - 20 2.5 Yr 6/6 banded wth Darker fine/med Sand	—	NCM	Photo #22
BI-6			20 - 24 Light Grey med Gravel and coarse Sand	—	NCM	
BI-6			24 - 27 Light Grey Clean Well Sorted fine Sand	—	NCM	
BI-6	7/17/2003	128.5 - 130.0	0 - 10 Dark Grey Silty Clayey fine Sand		NCM	Cuttings - Pebbles
BI-6			10 - 13 Dark Grey/Black Silty Clayey fine Sand	—	NCM	
BI-6			13 - 21 Dark Grey Silty Clayey fine Sand	—	NCM	
BI-6			21 - 37 Dark Grey med Sand	—	NCM	
BI-6	7/17/2003	132.5 - 135.0	0 - 47 Dark Grey Clayey Silt fine Sand		NCM	Nothing Screened
BI-6	7/17/2003	138.5 - 140.0	0 - 53 Dark Grey Clayey fine Sand		NCM	Cuttings - Pebbles
BI-6			53 - 62 Dark Grey fine Sandy Clay	—	NCM	
BI-6	7/17/2003	142.5 - 145.0	0 - 70 Dark Grey fine Sandy Clay		NCM	Nothing Screened
BI-6			at 39cm - small lense of organics		NCM	
BI-6	7/17/2003	148.5 - 150.0	0- 61 7.5 Yr 4/1, reddish but not 5 Yr Silty Clay		NCM	Nothing Screened
BI-6			at 6cm - thin layer of organics		NCM	
BI-6	7/17/2003	152.5 - 155.0	0 - 60 7.5 Yr 4/1 Dark Grey Silty Clay		NCM	No Inclusions
BI-6	7/17/2003	158.5 - 160.0	No Sample			No Sample
BI-6	7/17/2003	162.5 - 165.0	0 - 48 7.5 Yr 4/1 Dark Grey fine Sandy Clay		NCM	No Inclusions
BI-6			48 - 62 Dark Grey Clayey fine Sand	—	NCM	

Boring	Date	Depth (ft)	Description (cm)	SRFC (upper)	CM	Remarks
BI-6	7/17/2003	168.5 - 170.0	0 - 46 Clayey med/fine Sand			Small Sand Concretions
BI-6			Sand Fraction Increases with Depth			
BI-6	7/17/2003	172.5 - 175.0	0 - 19 Dark Grey Clayey fine Sand		NCM	No Inclusions
BI-6			19 - 22 Dark Grey/Black Clayey fine Sand		NCM	
BI-6			22 - 34 Dark Grey Clayey fine Sand		NCM	

DERT 1 IRB Phase I
 Log: Boring BI-7
 BC/MT/MH 07/09-10-15-16/2003

	Sharp Boundary
	Transitional Boundary
	Finning Upwards/Downwards

Boring	Date	Depth (ft)	Description (cm)	SRFC (upper)	CM	Remarks
BI-7	7/9/2003	1.0 - 2.5	0 - 32 2.5Y 6/3 Sand with 1-2 granules med Sand		NCM	5cm screened
BI-7	7/9/2003	2.5 - 4.0	0 - 37 10Yr 5/3 Sand with 1-2 granules med Sand		NCM	6cm screened
BI-7	7/9/2003	4.0 - 5.5	0 - 17 Grey Silt med		NCM	Med/Coarse Sand
BI-7			17 - 35 10Yr 5/3 Sand		NCM	Nothing screened
BI-7	7/9/2003	5.5 - 7.0	0 - 20 10Yr 5/3 med Sand		NCM	Nothing screened
BI-7			20 - 26.5 Peat		NCM	
BI-7			26.5 - 32.5 Brown fine sand (Organics)		NCM	
BI-7	7/9/2003	7.0 - 8.5	0 - 13 Brown/Grey fine/med Sand (Organics)		NCM	Nothing screened
BI-7			13 - 30 Grey fine/med Sand		NCM	
BI-7	7/9/2003	8.5 - 10.0	0 - 22 10Yr 6/2 fine Sand		NCM	5cm Screened
BI-7	7/9/2003	13.5 - 15.0	0 - 5 Brown/Grey fine/med Sand		NCM	5cm screened
BI-7			5 - 24 fine Grey Sand		NCM	Small Granules Noted, Shell
BI-7	7/9/2003	18.5 - 20.0	0 - 17 Brown/Grey fine Sand		NCM	Nothing screened
BI-7			17 - 24 coarse Gravel with Grey Sand		NCM	
BI-7			24 - 32 Grey coarse Sand with Gravel		NCM	Shell
BI-7			32 - 48 Grey med Sand		NCM	
BI-7	7/9/2003	22.5 - 25.0	0 - 9 Gravel with Grey med Sand		NCM	Gravel in Cuttings
BI-7			9 - 11 Brownish Grey med Sand		NCM	
BI-7			11 - 30 Grey med Sand		NCM	Gastropods
BI-7	7/9/2003	28.5 - 30.0	0 - 3 Gravel with med Sand		NCM	Nothing screened
BI-7			3 - 5 Black Peat with med Sand		NCM	
BI-7			5 - 11 Brownish Grey med Sand		NCM	Shell
BI-7			11 - 35 med/fine Grey Sand		NCM	
BI-7	7/9/2003	32.5 - 35.0	0 - 77 Grey Mud		NCM	Nothing screened
BI-7	7/9/2003	37.5 - 40.0	No Sample		NCM	Nothing screened
BI-7	7/10/2003	40.5 - 42.0	No Sample		NCM	Nothing screened
BI-7	7/10/2003	43.5 - 45.0	0 - 77 Gley 1 5/5gy Greenish Grey Mud		NCM	Gastropods
BI-7	7/10/2003	47.5 - 50.0	0 - 6 Grey Mud		NCM	Nothing screened
BI-7			6 - 15 Grey med Sand (Lense)		NCM	
BI-7			15 - 60 Grey Mud		NCM	Gastropods
BI-7	7/10/2003	53.5 - 55.0	0 - 39 Grey Mud		NCM	Nothing screened
BI-7			39 - 46 10Yr 3/1 Very Dark Grey med Sand		NCM	

Boring	Date	Depth (ft)	Description (cm)	SRFC (upper)	CM	Remarks
BI-7			46 - 48 Grey Mud (?)		NCM	
BI-7	7/10/2003	55.0 - 56.5	0 - 34 Greyish Brown med Sand		NCM	Nothing screened
BI-7	7/10/2003	56.5 - 58.0	0 - 7 Grey Mud		NCM	Nothing screened
BI-7			7 - 23 med Sand		NCM	
BI-7	7/15/2003	58.5 - 60.0	0 - 5 Brown med Sand with Gravel		NCM	Nothing screened
BI-7			5 - 14 Green Brown med Sand with Gravel		NCM	Shell
BI-7	7/15/2003	60.0 - 61.5	0 - 10 Grey/Brown med Sand with Gravel, Shell		NCM	Nothing screened
BI-7			10 - 26 Light Grey Sand with Silt?, Gravel, Shell		NCM	
BI-7	7/15/2003	61.5 - 63.0	0 - 27 Ligh Grey Sand with Gravel, Shell		NCM	Nothing screened
BI-7	7/15/2003	63.5 - 65.0	0 - 18.5 Light Grey med Sand with Gravel, Shell		Possible	3cm Screened, Possible Flake
BI-7	7/15/2003	68.5 - 70	0 - 19.5 Ligh Grey med Sand with Gravel, Shell		Possible	Cuttings, Possible Flake
BI-7	7/15/2003	73.5 - 75	0 - 4 Light Brown Sand with Gravel, Shell		NCM	Screened Cuttings
BI-7			4 - 15 Light Grey Sand with Gravel, Shell		NCM	
BI-7	7/15/2003	78.5 - 80.0	0 - 7.5 Light Grey med/fine Sand less Gravel		NCM	Screened Cuttings
BI-7			7.5 - 18 Light Grey/White fine Sand no Gravel		Possible	Possible Flakes
BI-7	7/15/2003	83.5 - 85.0	0 - 4 Light Grey/White fine Sand		NCM	Little to no Gravel or Shell
BI-7			4 - 5 Olive Brown med/fine Sand		NCM	
BI-7			5 - 10 Ligh Olive Grey Clay		NCM	
BI-7			10 - 27 Light Grey/White fine Sand		NCM	
BI-7	7/15/2003	88.5 - 90.0	0 - 16 Light Grey/White fine Sand		NCM	Nothing screened
BI-7			16 - 27 Light Olive Grey Clay		NCM	
BI-7			27 - 33 Light Grey White fine Sand		NCM	
BI-7	7/15/2003	93.5 - 95.0	0 - 9 Light Grey fine Silt Clay Loam		NCM	Changed from fine Sand
BI-7			9 - 15 Light Grey Sand Clay Loam		NCM	Sand Clay Loam ?
BI-7			15 - 17 Yellowish Brown Sand Clay Loam		NCM	Screened Cuttings
BI-7			17 - 24 Light Grey Sand Clay Loam		NCM	Shell and a few Pebbles
BI-7			24 - 27 Yellowish Brown Sand Clay Loam		NCM	
BI-7			27 - 42 Light Grey Sand Clay Loam		NCM	
BI-7	7/15/2003	98.5 - 100.0	0 - 10 Grey Brown med Sand Very Compact		NCM	Screened Cuttings
BI-7			10 - 26 Light Grey med Sand Very Compact		NCM	Some Shell more Gravel
BI-7	7/15/2003	103.5 - 105.0	0 - 1 Light Grey med Sand		NCM	Compact
BI-7			1 - 5 Grey/Brown med Sand		NCM	Nothing screened
BI-7			5 - 33 Light Grey med Sand		NCM	
BI-7	7/15/2003	108.5 - 110.0	0 - 52 Dark Yellowish Brown Silt Sand mottled with		NCM	Nothing screened
BI-7			Ligh Grey and Greenish Sand, Gravel Inclusions		NCM	
BI-7	7/15/2003	113.5 - 115.0	0 - 5 Dark Yellowish Brown Silt Sand mottled with		NCM	Nothing screened

Boring	Date	Depth (ft)	Description (cm)	SRFC (upper)	CM	Remarks
BI-7			Ligth Grey and Greenish Sand, Gravel Inclusions		NCM	
BI-7			5 - 14 Microlayers of Sand with Light Grey Sand	———	NCM	
BI-7			Mixed with Dark Grey Sand		NCM	
BI-7			14 - 27 Light Grey fine/med Sand	———	NCM	
BI-7	7/15/2003	118.5 - 120.0	0 - 9 Ligth Grey med Sand		NCM	Nothing screened
BI-7			9 - 27 Light Yellowish Brown med Sand	———	NCM	
BI-7			27 - 30 Dark Yellowish Brown med Sand	———	NCM	Iron Staining?
BI-7	7/15/2003	123.5 - 125.0	0 - 19 Grey fine/med Sand	~~~~~	NCM	Nothing screened
BI-7			19 - 23 White fine/med Sand	———	NCM	
BI-7			23 - 29 Dark Yellowish Brown fine/med Sand	———	NCM	
BI-7	7/15/2003	128.5 - 130.0	0 - 4 Dark Yellowish Brown Sand		NCM	Nothing screened
BI-7			4 - 23 Mottled Yellowish Brown with Light Grey	———	NCM	
BI-7			med Sand		NCM	
BI-7			23 - 30 Light Grey med Sand	———	NCM	
BI-7	7/15/2003	133.5 - 135.0	0 - 6 Light Grey Sand		NCM	Nothing Screened
BI-7			6 - 9 Light Yellowish Brown Sand	———	NCM	
BI-7			9 - 25 Light Yellowish Brown Sand	———	NCM	
BI-7	7/15/2003	138.5 - 140.0	0 - 9 Light Grey Sand	~~~~~	NCM	Nothing screened
BI-7			9 - 64 Dark Grey Clay	———	NCM	
BI-7	7/15/2003	143.5 - 145.0	0 - 43 Dark Grey Clay		NCM	Nothing screened
BI-7	7/15/2003	148.5 - 150.0	0 - 10 Grey Compact Sand		NCM	Unpenetrable Sample
BI-7	7/16/2003	153.5 - 155.0	0 - 8 Grey med Compact Sand		NCM	Unpenetrable Sample
BI-7	7/16/2003	158.5 - 160	0 - 18 Grey fine Sand Clay Loam		NCM	Cuttings Screened
BI-7			18 - 23 Dark Grey fine Sand Clay Loam	~~~~~	NCM	Some Shell and Pebbles
BI-7			23 - 62 Grey fine Sand Clay Loam	~~~~~	NCM	
BI-7	7/16/2003	163.5 - 165.0	0 - 64 Dark Grey fine med Sandy Clay Loam, Fining		NCM	Nothing screened
BI-7			Upwards	———	NCM	
BI-7	7/16/2003	168.5 - 170.0	0 - 23 Dark Grey/Light Grey Mottled med/coarse	~~~~~	NCM	Nothing screened
BI-7			Sandy Clay Loam		NCM	
BI-7			23 - 43 Light Grey/Tan Mottled fine Sandy Clay Loam	———	NCM	
BI-7	7/16/2003	173.5 - 175.0	0 - 10 Light/Dark Grey Mottled Sandy Silt Loam		NCM	Nothing screened
BI-7			10 - 28 Light/Dark Grey Mottled fine Sandy Silt Loam	~~~~~	NCM	
BI-7			with Peat inclusions and Pebbles		NCM	
BI-7			28 - 32 Peat - Dark Red/Brown	———	NCM	
BI-7			32 - 60 Dark Grey, Dark Red/Brown Mottled Sand	———	NCM	
BI-7			Finig Upwards	———	NCM	